



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,130	08/06/2001	Chun-Chieh Chen	U 013583-9	8942

7590 06/09/2004

LADAS & PARRY
26 WEST 61ST STREET
NEW YORK, NY 10023

EXAMINER

SALVATORE, LYNDA

ART UNIT	PAPER NUMBER
----------	--------------

1771

DATE MAILED: 06/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/923,130

Applicant(s)

CHEN ET AL.

Examiner

Lynda M Salvatore

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment filed 02/06/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-11, 13-19, 26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) 20-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-11, 13-19, 26 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1771

DETAILED ACTION***Response to Amendment***

1. Applicant's amendment and accompanying remarks filed 02/06/04 have been fully considered and entered. Claims 1,11 and 13-19 have been amended and new claims 25-28 have been added. Applicant's amendments to claims 1 and 13-19 have been found sufficient to overcome the claim objections and 112 2nd paragraph indefinite rejections set forth in sections 7-10 of the last Office Action. As such, these rejections are hereby withdrawn. Applicant's amendments have been found sufficient to overcome the anticipation and obviousness rejections set forth in sections 11-14 of the last Office Action. As such, these rejections are hereby withdrawn. However, Applicant's amendments necessitated a new art search and upon further consideration a new ground of rejection is set forth herein below.

Election/Restrictions

2. Applicant's election without traverse of claims 1-19 filed 02/06/04 is acknowledged.

Newly submitted claim 25 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 25 is directed to a composition.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 25 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

Art Unit: 1771

pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 1 and 26 are indefinite because it is unclear to the Examiner how shaping the extended fibers forms a three dimensional non-woven structure. For purposes of examination this limitation will be construed to mean a non-woven fabric comprising extruded fibers.

Claim Rejections - 35 USC § 102

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1,2,8,9,11, 13-19 and 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Singleton et al., WO 93/01622.

The published PCT application teaches graft polymerizing acrylic acid to a polypropylene comprising non-woven sheet (Abstract). The graft polymerization method comprises impregnating a non-woven fabric with a solution of acrylic acid, benzophenone, surfactant and water by passing the fabric around rollers within a nitrogen gas chamber (Page 15, example 2). With regard to the extruded fiber limitation, Singleton et al., teaches using co-extruded bi-component fibers having a core of polypropylene and a sheath or outer layer of polyethylene (Page 5, paragraph 1). Singleton et al., further teaches that the impregnated fabric was passed through the nitrogen gas atmosphere at a speed that which allowed said impregnated fabric to be exposed to radiation for about 6 seconds (Page 15, Example 2). Singleton et al., teaches a calendared fabric having a thickness of 200µm (Page, 15, Example 2). With regard to

Art Unit: 1771

claim 27, Singleton et al., also teaches exposing the fabric to oxygen/argon atmosphere (Page 10, 2nd paragraph).

With regard to the limitation regarding a carrier for cell attachment having a surface affinity for cells to attach and grow, said intended use limitations are not given patentable weight at this time. It is the position of the Examiner that the prior art meets the structural and chemical limitations presently set forth and there are no other limitations which would evidence that the prior art product could not function in the desired claimed capacity.

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singleton et al., WO 93/01622 as applied to claim 1 above, and further in view of Johnson et al., US 4,000,967.

Singleton et al., fails to teach the limitations set forth in the above aforementioned claims. However, with regard to claims 3 and 7, the patent issued to Johnson et al., teaches a polyolefin non-woven battery separator mat comprising staple length melt-blown fibers (Abstract, Column 2, 1-10, and Column 5, 1-5). With regard to claim 5, Johnson et al., teaches a porosity of greater than 40% (Column 1, 58-60). With regard to claim 6, Johnson et al., teaches embossing a pattern or rib on the surface of the non-woven (Column 4, 47-53). Therefore, motivated by the desire to provide a material suitable for use as a battery separator it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the teachings of

Art Unit: 1771

Johnson et al., and produce the non-woven mat of Singleton et al., having the above aforementioned claimed features.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Singleton et al., WO 93/01622 as applied to claim 1 above.

The combination of prior art fails to teach a carrier material, which is circular however, it would have been obvious to make a circular non-woven mat with the desired claimed diameter range to expand the number applications. It has been held such a modification in design would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of one having ordinary skill in the art. *In re Dailey* 105 USPQ 237 (CCPA 1955).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 1771

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 571-272-1482.


The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1482. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 30, 2004

ls


CHERYL A. JOSKA
PRIMARY EXAMINER